

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 19, 2005. Claims 1 to 28 are in the application, of which Claims 1, 2, 3, 11, 12 and 13 are the independent claims. Reconsideration and further examination are respectfully requested.

Applicant thanks the Examiner for her indication of allowable subject matter in dependent Claims 2, 3, 12 and 13. In keeping with this indication, each of those claims has been rewritten in independent form. In making this rewrite, the feature of independence between the second and fourth optical elements (as set forth in the "wherein" clause of base claims 1 and 11, respectively) has been omitted. However, this omission is not seen to affect allowability, and allowance of Claims 2, 3, 11 and 12 is respectfully requested.

Claims 1, 4, 5, 7 to 11, 14, 15 and 17 to 20 were rejected under 35 U.S.C. § 102(b) over U.S. Patent 5,543,955 (Yamazaki), and Claims 6 and 16 were rejected under § 103(a) over Yamazaki. In addition, Claims 21 to 24 (insofar as they depend from any one of the above claims) were rejected under § 103(a) over Yamazaki in view of U.S. Patent 5,602,578 (Sumiyoshi). Reconsideration and withdrawal of these rejections are respectfully requested.

The invention concerns a scanning optical apparatus in which a first optical element converts a light flux emitted from a light source and a second optical element converts the light flux emitted from the first optical element into a longitudinal linear

image in a main scanning direction. In Claim 11, there are a plurality of light sources and a plurality of first optical elements. A deflection element scanningly deflects the light flux emitted from the second optical element, and third optical element guides the light flux deflected by the deflection element onto a surface to be scanned. A fourth optical element guides light flux deflected by the deflection element to a synchronous detection element that obtains a synchronous signal. A deflection point is defined as a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element. According to one aspect of the invention, an optical path from an exit surface of the third optical element to the deflection point is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

As shown in one representative (but non-limiting) embodiment of the invention such as Figure 1 of the subject application, an optical path from an exit surface of scanning lens system 6 toward the deflection point is longer than an optical path from an incident surface of BD lens 73 to the deflection point. In keeping with this arrangement, it is possible to ensure compactness of the scanning optical apparatus while also ensuring that a good synchronous signal can be obtained.

In contrast to the foregoing arrangement, although it is true that Figure 1 of Yamazaki shows some optical elements that correspond to those set out in the claims herein, the relationship between optical paths is opposite to that claimed herein. In more detail, there is a first optical path from the exit surface of toric lens 22 to a deflection point on polygonal mirror 18. There is also a second optical path from the incident surface of cylindrical lens 14 to the same deflection point on polygonal mirror 18. However, in the

arrangement shown in Figure 1 of Yamazaki, the first optical path from the exit surface of toric lens 22 to the deflection point on polygonal mirror 18 is shorter than the second optical path from the incident surface of lens 14 to the deflection point. According to Claims 1 and 11, it should be longer.

It is therefore respectfully submitted that Claims 1 and 11 are neither anticipated nor would have been obvious from any fair reading of Yamazaki or from Yamazaki and Sumiyoshi, and allowance of these claims is respectfully requested.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael K. O'Neill", is written over a horizontal line.

Attorney for Applicant
Michael K. O'Neill
Registration No. 32,622

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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